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**U.S. Department of Homeland Security**  
U.S. Citizenship and Immigration Services  
Administrative Appeals Office (AAO)  
20 Massachusetts Ave., N.W., MS 20529-2090  
Washington, DC 20529-2090



**U.S. Citizenship  
and Immigration  
Services**

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DATE: **APR 19 2012** OFFICE: TEXAS SERVICE CENTER

IN RE: Petitioner: [REDACTED]  
Beneficiary: [REDACTED]

PETITION: Immigrant Petition for Alien Worker as a Member of the Professions Holding an Advanced Degree or an Alien of Exceptional Ability Pursuant to Section 203(b)(2) of the Immigration and Nationality Act, 8 U.S.C. § 1153(b)(2)

ON BEHALF OF PETITIONER:

[REDACTED]

**INSTRUCTIONS:**

Enclosed please find the decision of the Administrative Appeals Office in your case. All of the documents related to this matter have been returned to the office that originally decided your case. Please be advised that any further inquiry that you might have concerning your case must be made to that office.

If you believe the law was inappropriately applied by us in reaching our decision, or you have additional information that you wish to have considered, you may file a motion to reconsider or a motion to reopen. The specific requirements for filing such a request can be found at 8 C.F.R. § 103.5. All motions must be submitted to the office that originally decided your case by filing a Form I-290B, Notice of Appeal or Motion, with a fee of \$630. Please be aware that 8 C.F.R. § 103.5(a)(1)(i) requires that any motion must be filed within 30 days of the decision that the motion seeks to reconsider or reopen.

Thank you,

*Mai Jcsm*

Perry Rhew  
Chief, Administrative Appeals Office

**DISCUSSION:** The Director, Texas Service Center, denied the employment-based immigrant visa petition. The matter is now before the Administrative Appeals Office (AAO) on appeal. The AAO will sustain the appeal and approve the petition.

The petitioner seeks to classify the beneficiary under section 203(b)(2) of the Immigration and Nationality Act (the Act), 8 U.S.C. § 1153(b)(2), as a member of the professions holding an advanced degree. The petitioner, energy research/production company, seeks to employ the beneficiary as a principal engineer. At the time of filing, the beneficiary was also a doctoral candidate at the University of South Carolina (USC). The petitioner asserts that an exemption from the requirement of a job offer, and thus of a labor certification, is in the national interest of the United States. The director found that the beneficiary qualifies for classification as a member of the professions holding an advanced degree, but that the petitioner has not established that an exemption from the requirement of a job offer would be in the national interest of the United States.

On appeal, the petitioner submits a brief from counsel and numerous supporting exhibits, most of them duplicates of previous submissions.

Section 203(b) of the Act states, in pertinent part:

(2) Aliens Who Are Members of the Professions Holding Advanced Degrees or Aliens of Exceptional Ability. –

(A) In General. – Visas shall be made available . . . to qualified immigrants who are members of the professions holding advanced degrees or their equivalent or who because of their exceptional ability in the sciences, arts, or business, will substantially benefit prospectively the national economy, cultural or educational interests, or welfare of the United States, and whose services in the sciences, arts, professions, or business are sought by an employer in the United States.

(B) Waiver of Job Offer –

(i) . . . the Attorney General may, when the Attorney General deems it to be in the national interest, waive the requirements of subparagraph (A) that an alien's services in the sciences, arts, professions, or business be sought by an employer in the United States.

The director did not dispute that the petitioner qualifies as a member of the professions holding an advanced degree. The sole issue in contention is whether the petitioner has established that a waiver of the job offer requirement, and thus a labor certification, is in the national interest.

Neither the statute nor the pertinent regulations define the term “national interest.” Additionally, Congress did not provide a specific definition of “in the national interest.” The Committee on the Judiciary merely noted in its report to the Senate that the committee had “focused on national interest by

increasing the number and proportion of visas for immigrants who would benefit the United States economically and otherwise. . . .” S. Rep. No. 55, 101st Cong., 1st Sess., 11 (1989).

Supplementary information to regulations implementing the Immigration Act of 1990, published at 56 Fed. Reg. 60897, 60900 (November 29, 1991), states:

The Service [now U.S. Citizenship and Immigration Services] believes it appropriate to leave the application of this test as flexible as possible, although clearly an alien seeking to meet the [national interest] standard must make a showing significantly above that necessary to prove the “prospective national benefit” [required of aliens seeking to qualify as “exceptional.”] The burden will rest with the alien to establish that exemption from, or waiver of, the job offer will be in the national interest. Each case is to be judged on its own merits.

*Matter of New York State Dept. of Transportation (NYSDOT)*, 22 I&N Dec. 215 (Act. Assoc. Comm'r 1998), has set forth several factors which must be considered when evaluating a request for a national interest waiver. First, the petitioner must show that the alien seeks employment in an area of substantial intrinsic merit. Next, the petitioner must show that the proposed benefit will be national in scope. Finally, the petitioner seeking the waiver must establish that the alien will serve the national interest to a substantially greater degree than would an available United States worker having the same minimum qualifications.

While the national interest waiver hinges on prospective national benefit, the petitioner must establish that the alien’s past record justifies projections of future benefit to the national interest. The petitioner’s subjective assurance that the alien will, in the future, serve the national interest cannot suffice to establish prospective national benefit. The intention behind the term “prospective” is to require future contributions by the alien, rather than to facilitate the entry of an alien with no demonstrable prior achievements, and whose benefit to the national interest would thus be entirely speculative.

The AAO also notes that the regulation at 8 C.F.R. § 204.5(k)(2) defines “exceptional ability” as “a degree of expertise significantly above that ordinarily encountered” in a given area of endeavor. By statute, aliens of exceptional ability are generally subject to the job offer/labor certification requirement; they are not exempt by virtue of their exceptional ability. Therefore, whether a given alien seeks classification as an alien of exceptional ability, or as a member of the professions holding an advanced degree, that alien cannot qualify for a waiver just by demonstrating a degree of expertise significantly above that ordinarily encountered in his or her field of expertise.

The petitioner filed the Form I-140 petition on July 20, 2010. On that form, the petitioner indicated that the beneficiary’s job involves “[m]echanical design of nuclear fuel assembly grid and core components.”

██████████ the petitioner’s manager of global mobility, praised the beneficiary’s “authorship of nine (9) papers published in international peer-reviewed journals, with twelve

**(12) years of private industry experience in the field of nuclear power plant design”** (emphasis in original). In her 21-page statement, [REDACTED] listed several of the beneficiary’s technical accomplishments. Examples follow:

**[A]s a Researcher at the Graduate School of Metallurgy at Fluminense Federal University . . . [the beneficiary] not only discovered an alternative and less expensive process of producing titanium dioxide on an industrial scale, but he also acquired the specialized knowledge and skills in hydrometallurgical mechanisms, specifically the related reaction kinetics of nuclear materials. . . .**

In 2000, [the beneficiary] completed his Master’s thesis on fuel assembly finite element modeling [FEM] for pressurized-water reactors. . . . His Master’s thesis was an important advancement in the field as it confirmed the applicability of 16x16 fuel assembly FEM for fuel assembly design and licensing purposes involving structural vibrations and stresses under various operating/accident conditions. As such, his fuel assembly FEM model was benchmarked against experimental results. **Due to its more realistic verifications of the design criteria which allow for lighter and more flexible fuel assembly designs, [the beneficiary’s] fuel assembly FEM delivers safer nuclear fuel assembly designs compared to more traditional processes. . . .**

**Due to the success of [the beneficiary’s] above-contributions, his designs have been used to train new engineers and support licensing processes for safe operating power plants in the US and worldwide.** Sample contracts on knowledge transfer and related license processing memoranda evidencing the use of [the beneficiary’s] work are enclosed as **Exhibit F.**

(Emphasis in original.) Exhibit F consists of a 63-page “calculation note” entitled “16NGF Fuel Assembly Finite Element Models for ANGRA-1.” Markings on the cover page indicate that the document contains “Proprietary Information” that is not “Releasable.” Page 60 of the calculation note indicates that the document is not releasable because it “contain[s] special methodology or calculation techniques developed by or for [the petitioner] using a knowledge base that is not available in the open literature.” The petitioner also submitted copies of the cover pages of several more calculation notes, most of them also labeled as non-releasable. The cover pages do not mention “knowledge transfer” or “license processing,” or identify any outside party as a licensee or transferee. The titles of most of these documents include the words “Analysis” or “Evaluation.” The materials, therefore, do not inherently establish the extent of the use of the beneficiary’s technology outside of the petitioning company. (That being said, the international reach of the petitioning company means that the beneficiary can have a very substantial impact on his field even without going outside of that company.)

With respect to the beneficiary’s work for the petitioner, [REDACTED] stated:

[The beneficiary worked on] an innovative project focused on enhancing the thermal performance (i.e., heat transfer) of nuclear fuel rod bundles in the reactor core. **By improving the heat transfer in rod bundles, it is possible to increase the power density in the reactor core and obtain more energy from the fuel.** This means more electricity produced from the same amount of uranium, resulting in less waste. . . . **Preliminary analyses have demonstrated a potential for heat transfer enhancement of at least a factor of two.** . . .

In addition, as Design Engineer, [the beneficiary] has been responsible [for] the structural design, analysis, and verification of the new AP1000 fuel assembly nozzle, spacer grid, and core rod cluster control as well as numerical modeling of the new ODEN thermal-hydraulic test loop, a proposed fuel clad design to improve heat transfer and safety analysis to license rod cluster controls at . . . various US power plants. Due to his achievements in these various projects, in **June 2010**, [the beneficiary] was promoted to **Principal Engineer**.

[REDACTED] then discussed the intrinsic merit and national scope of the petitioner's occupation, for instance asserting that nuclear power does not produce significant quantities of the greenhouse gas carbon dioxide, and noting the petitioner's market share as a dominant supplier of equipment and fuel to nuclear power plants throughout the United States. The remainder of [REDACTED] statement comprises lengthy quotations from witness letters that accompanied the petition.

Most of the witnesses are current or former engineers with the petitioning company. One exception is [REDACTED] Esteves, a professor at Federal Fluminense University in Rio de Janeiro, Brazil, as well as the assessor of the president of Brazil's nuclear regulatory authority, the *Comissão Nacional de Energia Nuclear*. He stated:

[The beneficiary] worked with me at Industrias Nucleares do Brasil for about 10 years, as engineer, in the design and engineering of nuclear fuel for Nuclear Power Plants. . . .

I was also project manager in the joint development project of a new nuclear fuel for the nuclear power plants Angra 1 (Brazil) and Kori 2 (South Korea). [The beneficiary] and I were members of the Brazilian team, which contributed [to] the success of the advanced fuel project in the US, Westinghouse Columbia plant, during the years from 2001 to 2003. . . . [A] numerical model of the fuel to generate artificial adverse conditions in the reactor . . . was generated and the analysis completed with success by [the beneficiary] in a timely manner, confirming flawless performance of the advanced fuel in the reactor core. . . .

At this moment, [the petitioner] is introducing the new AP1000 nuclear reactor design in the market. This new reactor needs high qualified personnel to meet safety requirements from more and more demanding customers in [the] US and around the

world. [The beneficiary's] work is crucial to help satisfy[] the US Nuclear Regulatory Commission in the licensing process for safe nuclear electricity generation in these new plants.

USC Professor [REDACTED] stated:

[The beneficiary's] current research at the University of South Carolina is supported and funded by [the petitioner]. This particular research involves a novel concept of adding turbulizers on the cladding of a nuclear rod to enhance flow turbulence and heat transfer. This research involves designing a cutting edge experimental facility to simulate experimental conditions to predict the performance in a reactor. [The beneficiary] has designed such a facility, which was constructed and instrumented at USC. . . .

His research can significantly contribute to the growth of the US economy as it will dramatically improve the thermal performance of nuclear reactor cores.

[REDACTED] chairman of the ASTM International Committee on Reactive and Refractory Metals and Alloys, stated:

[The beneficiary] is developing a new fuel rod clad design as part of his doctoral program. This new design can significantly enhance the heat exchange in nuclear fuel bundles, as such increasing the total power density in the core. This means more electricity on US power lines at reduced cost. . . . At the Columbia factory, [the petitioner] fabricates nuclear fuel for most of the nuclear plants in the USA and roughly half of the nuclear plants in the world. [The beneficiary's] contributions facilitate[] this activity that promotes energy independence for the USA, which is also of security interest. In addition to that, since nuclear energy does not contribute to the release of carbon dioxide into the environment, [the beneficiary's] work positively contributes [to] improvement of the global environment.

[REDACTED] a former employee of the petitioner who still performs consulting work for it, stated that the petitioner's "expertise . . . [is] evident" and "provides [the petitioner] and the United States a capability to maintain its leadership in the nuclear fuel area."

[REDACTED] a former consulting engineer with the petitioner who is now a part-time consultant for System One, stated:

I have worked with [the petitioner] over a time span of seven years. During that time I have known him to be an engineer with an exceptionally high level of knowledge and expertise in mechanical design of nuclear fuel assemblies. An example of this is his novel development of a finite element analysis methodology to improve the fuel rod mechanical support structure that has resulted in a significant margin increase

against fretting wear . . . [which] has accounted for over 80% of the fuel failures that have occurred. . . .

[H]e also performed evaluations that have uniquely increased the understanding of the behavior of fuel assemblies under seismic conditions. It is critical to public safety that the nuclear power plant is properly designed to withstand seismic events such as earthquakes without the release of radioactivity to the environment.

Another System One consultant and former employee of the petitioner, [REDACTED] asserted that there is a national need for skilled engineers in the beneficiary's specialty. The only shortage-based blanket waiver in the statute pertains to certain physicians; *see* section 203(b)(2)(B)(ii) of the Act. The assertion that qualified professionals in the beneficiary's field are in short supply is an argument for obtaining, rather than waiving, a labor certification on his behalf. *See NYSDOT*, 22 I&N Dec. 222. [REDACTED] declined to discuss the beneficiary's specific projects, stating: "I am not an expert in the highly technical areas that [the beneficiary] works in, so I cannot provide a professional opinion of his work."

[REDACTED] now a senior project manager with the Electric Power Research Institute, described his earlier work with the beneficiary at the petitioning company:

I met [the beneficiary] in late 2002, when he was called upon to develop . . . 15x15 and 16x16 advanced fuel designs. . . . These new fuels are designed for high burn-up capability with advanced design features that minimize grid to fuel rod fretting wear and spring/dimple features that minimize undesirable drops in hydraulic pressure.

During this time, [the beneficiary] demonstrated tremendous technical knowledge and expertise in solving complex design problems that helped to deliver safe, reliable and high burn-up capable nuclear fuel. . . . [A]fter a lengthy design process, a fuel-rod-to-grid fretting wear issue was discovered . . . [which], if uncorrected, could lead to the breach of the fuel rod and thus potential release of radioactive species into the reactor coolant. . . . [The beneficiary] quickly and successfully optimized a fuel rod grid supporting structure that mitigated the design shortcomings. The optimization procedure developed by [the beneficiary] was considered an innovation and resulted in a paper published at the International Conference on Nuclear Engineering (ICONE) in Beijing, 2005.

The petitioner submitted copies of nine papers by the beneficiary, published in journals or conference proceedings. These materials establish the beneficiary's participation in conducting and disseminating research, but cannot intrinsically show their own impact or influence on the field.

On December 16, 2010, the director issued a notice of intent to deny the petition. The director asserted that the petitioner's initial submission did little more than spell out the beneficiary's

professional qualifications, and that the record contained no documentary evidence to corroborate witnesses' claims about the importance of the petitioner's contributions.

In response to the notice, the petitioner submitted copies of previously submitted exhibits and a statement from [REDACTED] essentially repeating prior claims. [REDACTED] stated that the beneficiary's "work was also used as an industry reference" for the application of AISI 316L, low carbon stainless steel, in nuclear fuel structures. See Exhibit E in our original submission and in this submission as Exhibit M" (emphasis in original). Exhibit M is another copy of "16NGF Fuel Assembly Finite Element Models for ANGRA-1." A disclaimer on the cover page reads:

This document is the property of and contains Proprietary Information owned by Industrias Nucleares do Brasil / KEPCO Nuclear Fuel Co. Ltd. / Westinghouse Electric Company LLC and/or its subcontractors and suppliers. It is transmitted to you in confidence and trust, and you agree to treat this document in strict accordance with the terms and conditions of the agreement under which it was provided to you.

This information does not seem to indicate that the document is "an industry reference," but rather consists of privileged and controlled information, released only to selected parties (whom the record does not identify).

The petitioner submitted four new witness letters, two of them from previous witnesses. [REDACTED] repeated portions of his earlier letter, and stated:

The work that [the beneficiary] performs cannot be done by a minimally qualified nuclear engineer. Only an engineer with [the beneficiary's] unique skills and real-world experience in mechanical design can successfully fulfill his duties. . . . Only someone with unique skills in . . . multiple areas, such as [the beneficiary], can fully understand the complex interaction of these various mechanical behaviors and safely improve the efficiency of the nuclear plants.

[REDACTED] here, appears to equate the term "minimally qualified" with "unqualified," stating a minimally qualified worker would be unable to perform the duties of the beneficiary's position.

The second letter from [REDACTED] mostly resembles the first, with added language indicating that the beneficiary provides important support for the AP1000 reactor project, and "is now training on-the-job American workers in the nuclear industry to become productive in this expanding market."

[REDACTED] product design manager for the petitioner, stated that the beneficiary's "design analysis work directly impacts the development of both new and existing fuel assemblies," and that the beneficiary's "computational model . . . will be extremely beneficial in increasing the output of compacted green [uranium dioxide] pellets per minute." From the wording of the letter, it is evident that both of these innovations, described as "key contributions," are unfinished works-in-progress,

expected to be important to the industry at some point in the future. As such, this letter is not among the more persuasive examples in the record.

[REDACTED] product technical manager for the petitioning company, stated that the beneficiary's "knowledge and effort . . . have led to a significantly more reliable next generation fuel assembly design," and that the beneficiary's "specialized talents as a fuel designer are vital to the industry and nation."

The director denied the petition on July 26, 2011, stating that the petitioner failed to submit objective, documentary evidence to show that the beneficiary's accomplishments have had a greater impact on his field than those of other qualified workers. The director also found that the petitioner's "information fails to establish that the area of work is of substantial intrinsic merit to the United States and that the benefit to be imparted will be national in scope."

On appeal, counsel contends that the petitioner has met all three prongs of the national interest test from *NYSDOT*. Counsel states: "The intrinsic merit of [the beneficiary's] work is in conducting research to improve the safety and productivity of nuclear power plants. The national scope of this work is evident in its potential to increase energy availability, contribute toward energy independence, and reduce environmental damage" (counsel's emphasis). Counsel's assertions, supported by evidence in the record, are persuasive. The AAO finds that the beneficiary's occupation has substantial intrinsic merit and national scope, and the AAO withdraws the director's finding to the contrary.

Counsel refers to the earthquake and tsunami that breached the Fukushima nuclear power plant in Japan on March 11, 2011, an event that occurred after the petitioner's prior submissions. Counsel notes that the beneficiary "is the responsible modeler for the redesign of" the rod cluster control assembly of the petitioner's AP1000 reactor, a reactor that "is specifically designed to stay within a safe temperature range and, in the case of an accident, shut down automatically." The assertion that the beneficiary's system would have avoided the catastrophic damage in Japan remains unverifiable conjecture, but the record shows that the beneficiary has been involved in testing the stability of the rod system in seismic episodes such as earthquakes.

There remains the third prong of the *NYSDOT* national interest test, specific to the beneficiary. Counsel states:

[I]t is [the beneficiary's] individual contributions to the field of nuclear engineering that justify a projection of future benefits and merit a waiver of the labor certification. These contributions (which include the development of innovative methodologies to strengthen and test nuclear components which improve the safety and productivity of nuclear reactors) are well beyond those of an engineer with a comparable background.

As a result, pursuing a labor certification for [the beneficiary's] position would not serve the national interest. . . . Given the safety, environmental protection, economic, and security interests which are potentially impacted by [the petitioner's] ability to continue to offer this position to a qualified engineer with proven contributions in the field (such as [the beneficiary]), it is in the national interest to grant a waiver of the labor certification. If any field is not suited for *minimally* qualified workers, U.S. or otherwise, it is nuclear energy given the enormous stakes involved.

The AAO strongly disagrees with the last sentence quoted above. Counsel implies that, because nuclear energy is so important and yet so dangerous, there should be a blanket waiver for workers in that field. Congress created no such blanket waiver, and the existing regulations do not provide for one. It is true that there are fields involving "enormous stakes," such as nuclear energy and brain surgery, in which a small mistake can have devastating consequences. This does not mean, however, that a "minimally qualified" worker is unprepared for those tasks. Rather, it means that the "minimum qualifications" must reflect an appropriately high standard. A worker incapable of designing the components of nuclear reactors is not "minimally qualified," but rather "unqualified."

Notwithstanding counsel's fallacious conflation of "minimally qualified" with "unqualified," counsel is generally correct that an alien's history of accomplishment can qualify him or her for the waiver. The question is not whether a nuclear fuel engineer can, in principle, qualify for the waiver. Rather, the question is whether the petitioner has shown that this particular beneficiary qualifies for the waiver.

The documentary evidence of record establishes the beneficiary's involvement in important projects, and the intrinsic merit and national scope of his occupation. This evidence, however, does not facially establish the importance of the beneficiary's contributions, or establish the extent to which the beneficiary's achievements exceeded what one could expect from other qualified workers in the field. Many of the exhibits in the record are highly technical, and therefore impenetrable to lay readers without a background in nuclear engineering. Given the proprietary nature of much of the beneficiary's work for the petitioner, it would be unreasonable to expect widespread dissemination of the beneficiary's technical writings. Unlike journal articles, internal documents are generally not amenable to heavy citation, and therefore the lack of citation data is of considerably less concern than it otherwise might be. The petitioner's recent published articles are more general than his proprietary work for the petitioner, for example evaluating various testing methods without disclosing the results of individual tests.

It is here where the value of witness letters lies. Witnesses' factual claims cannot take the place of first-hand documentary evidence to establish the facts in question, but they can clarify the beneficiary's findings and give context to their significance.

It is to be expected that a professional in the beneficiary's field would seek to improve upon existing nuclear reactor technology. Therefore, simply to identify improvements cannot suffice to set the beneficiary apart from other qualified professionals in the same field. What distinguishes the

beneficiary is not the existence of these improvements, but their scale and significance. Witnesses, for instance, explained the significance of the beneficiary's work to reduce fretting wear on grid-mounted fuel rods, which is a significant problem with nuclear fuel.

The director, in the denial decision, did not discuss the petitioner's work except for quotations from one witness letter. The director did not explain the finding that the petitioner had not even established the intrinsic merit of the beneficiary's occupation. The director's decision cannot stand. The AAO finds that the petitioner has submitted sufficient evidence and information to establish that the beneficiary's past achievements stand out in his field, and that he is in a position to make further contributions. The petitioner has credibly shown that the benefit of retaining this alien's services outweighs the national interest that is inherent in the labor certification process. Therefore, on the basis of the evidence submitted, the petitioner has established that a waiver of the requirement of an approved labor certification will be in the national interest of the United States.

The burden of proof in these proceedings rests solely with the petitioner. Section 291 of the Act, 8 U.S.C. § 1361. The petitioner has sustained that burden. Accordingly, the AAO will withdraw the director's decision and approve the petition.

**ORDER:** The appeal is sustained and the petition is approved.